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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 12	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 13	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 15	AUG 27	USPATOLD now available on STN
NEWS 16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18	SEP 13	FORIS renamed to SOFIS
NEWS 19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 20	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24	OCT 19	BEILSTEIN updated with new compounds

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:18:25 ON 26 OCT 2007

=> file medline caplus embase biosis
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'MEDLINE' ENTERED AT 15:18:50 ON 26 OCT 2007

FILE 'CAPLUS' ENTERED AT 15:18:50 ON 26 OCT 2007
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FILE 'BIOSIS' ENTERED AT 15:18:50 ON 26 OCT 2007
Copyright (c) 2007 The Thomson Corporation

=> s primase and rna and (fluorescen? or fluorophore) and (template or target)
L1          19 PRIMASE AND RNA AND (FLUORESCEN? OR FLUOROPHORE) AND (TEMPLATE
               OR TARGET)

=> dup remove l1
PROCESSING COMPLETED FOR L1
L2          16 DUP REMOVE L1 (3 DUPLICATES REMOVED)

=> s primase and rna and (fluorescen? or fluorophore)
L3          45 PRIMASE AND RNA AND (FLUORESCEN? OR FLUOROPHORE)

=> s l3 and screen?
L4           4 L3 AND SCREEN?

=> dup remove l4
PROCESSING COMPLETED FOR L4
L5           4 DUP REMOVE L4 (0 DUPLICATES REMOVED)

=> d ti 1-4

L5   ANSWER 1 OF 4  BIOSIS  COPYRIGHT (c) 2007 The Thomson Corporation  on STN
TI   High throughput screening assays for bacterial primases
     .

L5   ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Fluorometric assay for bacterial primases

L5   ANSWER 3 OF 4     MEDLINE on STN
TI   Homogenous assays for Escherichia coli DnaB-stimulated DnaG
     primase and DnaB helicase and their use in screening for
     chemical inhibitors.

L5   ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   FlashPlate scintillation proximity assays for characterization and
     screening of DNA polymerase, primase, and helicase
     activities


=> d bib 1-4

L5   ANSWER 1 OF 4  BIOSIS  COPYRIGHT (c) 2007 The Thomson Corporation  on STN
```

AN 2006:345752 BIOSIS
DN PREV200600344884
TI High throughput screening assays for bacterial primases

AU Griep, Mark A. [Reprint Author]; Koepsell, Scott A.; Hinrichs, Steven H.
CS Univ Nebraska, Lincoln, NE 68588 USA
SO FASEB Journal, (MAR 6 2006) Vol. 20, No. 4, Part 1, pp. A510-A511.
Meeting Info.: Experimental Biology 2006 Meeting. San Francisco, CA, USA. April 01 -05, 2006. Amer Assoc Anatomists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr; Amer Soc Pharmacol & Expt Therapeut.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 12 Jul 2006
Last Updated on STN: 12 Jul 2006

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:265750 CAPLUS
DN 142:477808
TI Fluorometric assay for bacterial primases
AU Koepsell, Scott A.; Hanson, Sarah; Hinrichs, Steven H.; Griep, Mark A.
CS Department of Microbiology and Pathology, University of Nebraska Medical Center, Omaha, NE, 68198, USA
SO Analytical Biochemistry (2005), 339(2), 353-355
CODEN: ANBCA2; ISSN: 0003-2697
PB Elsevier
DT Journal
LA English
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 4 MEDLINE on STN
AN 2002270850 MEDLINE
DN PubMed ID: 12009693
TI Homogenous assays for Escherichia coli DnaB-stimulated DnaG primase and DnaB helicase and their use in screening for chemical inhibitors.
AU Zhang Yi; Yang Fude; Kao Yeh-Chih; Kurilla Michael G; Pompliano David L; Dicker Ira B
CS Pharmaceutical Research Institute, Bristol-Myers Squibb Company, Wilmington, DE 19880, USA.
SO Analytical biochemistry, (2002 May 15) Vol. 304, No. 2, pp. 174-9.
Journal code: 0370535. ISSN: 0003-2697.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200210
ED Entered STN: 16 May 2002
Last Updated on STN: 11 Oct 2002
Entered Medline: 10 Oct 2002

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:154887 CAPLUS
DN 134:337441
TI FlashPlate scintillation proximity assays for characterization and screening of DNA polymerase, primase, and helicase activities
AU Earnshaw, David L.; Pope, Andrew J.
CS Molecular Interactions and New Assay Technologies, SmithKline Beecham Pharmaceuticals, Essex, UK
SO Journal of Biomolecular Screening (2001), 6(1), 39-46

CODEN: JBISF3; ISSN: 1087-0571
PB Mary Ann Liebert, Inc.
DT Journal
LA English
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l1 and screen?
L6 4 L1 AND SCREEN?

=> d ti 1-4

L6 ANSWER 1 OF 4 MEDLINE on STN
TI Homogenous assays for Escherichia coli DnaB-stimulated DnaG primase and DnaB helicase and their use in screening for chemical inhibitors.

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
TI Fluorometric assay for bacterial primases

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
TI FlashPlate scintillation proximity assays for characterization and screening of DNA polymerase, primase, and helicase activities

L6 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI High throughput screening assays for bacterial primases

=> dup remove l1
PROCESSING COMPLETED FOR L1
L7 16 DUP REMOVE L1 (3 DUPLICATES REMOVED)

=> d ti 1-16

L7 ANSWER 1 OF 16 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI High throughput screening assays for bacterial primases.

L7 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Methods for real-time recombinase-polymerase amplification (RPA) of target DNA

L7 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Methods and materials for RPA (recombinase polymerase amplification) of double stranded nucleic acids

L7 ANSWER 4 OF 16 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Crosstalk between primase subunits can act to regulate primer synthesis in trans.

L7 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Fluorometric assay for bacterial primases

L7 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides

L7 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Oligonucleotide tagged nucleoside triphosphates (OTNTPs) for genetic analysis, and synthesis from reactive bifunctional amidites

L7 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Genotype analysis using RecA protein and recombinase polymerase amplification (RPA) for potential use in molecular diagnosis of disease or detection of pathogenic organisms

L7 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension

L7 ANSWER 10 OF 16 MEDLINE on STN DUPLICATE 1
TI Mechanism and stoichiometry of interaction of DnaG primase with DnaB helicase of Escherichia coli in RNA primer synthesis.

L7 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI Identification of differentially expressed genes in pancreatic cancer cells using cDNA microarray

L7 ANSWER 12 OF 16 MEDLINE on STN
TI Homogenous assays for Escherichia coli DnaB-stimulated DnaG primase and DnaB helicase and their use in screening for chemical inhibitors.

L7 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
TI FlashPlate scintillation proximity assays for characterization and screening of DNA polymerase, primase, and helicase activities

L7 ANSWER 14 OF 16 MEDLINE on STN
TI Amplifications of DNA primase 1 (PRIM1) in human osteosarcoma.

L7 ANSWER 15 OF 16 MEDLINE on STN
TI Structural and functional studies of the rat mitochondrial single strand DNA binding protein P16.

L7 ANSWER 16 OF 16 MEDLINE on STN
TI Identification and subcellular localization of the polypeptide for chick DNA primase with a specific monoclonal antibody.

=> d bib kwic 6,9,10 17

L7 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:220076 CAPLUS
DN 140:248188
TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides
IN Hanna, Michelle M.
PA USA
SO U.S. Pat. Appl. Publ., 104 pp., Cont.-in-part of Appl. No. PCT/US02/34419.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004054162	A1	20040318	US 2003-425037	20030429
	US 2003099950	A1	20030529	US 2001-984664	20011030
	US 7045319	B2	20060516		
	WO 2003038042	A2	20030508	WO 2002-US34419	20021029
	WO 2003038042	A3	20040325		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU	2004235368	A1	20041111	AU 2004-235368	20040429
CA	2523442	A1	20041111	CA 2004-2523442	20040429
WO	2004096997	A2	20041111	WO 2004-US13031	20040429
WO	2004096997	A3	20050915		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP	1622923	A2	20060208	EP 2004-750780	20040429

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

JP	2006525022	T	20061109	JP 2006-513381	20040429
US	2006204964	A1	20060914	US 2005-551775	20051003
IN	2005KN02167	A	20060901	IN 2005-KN2167	20051102
PRAI US	2001-984664	A2	20011030		
WO	2002-US34419	A2	20021029		
US	2003-425037	A	20030429		
WO	2004-US13031	W	20040429		

TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides

AB . . . analogs may be incorporated into nucleic acids. In one embodiment, the process generates multiple amplification products from the primer and target. The methods generally comprise using a nucleoside, a mononucleotide, an oligonucleotide, or a polynucleotide, or analog thereof, to initiate synthesis of an oligonucleotide product that is substantially complementary to a target site on the defined polynucleotide sequence; optionally using nucleotides or nucleotide analogs as oligonucleotide chain elongators or chain terminators to. . .

ST transcriptional amplification nucleic acid RNA polymerase nucleotide nucleoside analog; DNA methylation analysis transcriptional amplification

IT Gene, animal

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CDKN2A, anal. of methylation of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Genetic element

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CpG island, anal. of methylation of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Bacteriophage SP6
Coliphage T7
Enterobacteria phage T3
Escherichia coli

(RNA polymerase of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Feces

(anal. of DNA methylation in; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Methylation
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Nucleotides, analysis
Purine nucleotides
Pyrimidine nucleotides
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(analogs, reporter group containing, in transcriptional primer elongation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Fluorescent dyes
(as reporter groups; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT DNA
RNA
RL: ANT (Analyte); ANST (Analytical study)
(as template for amplification; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Diagnosis
(cancer, anal. of DNA methylation in; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(conjugates with oligonucleotides, detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Nucleic acid amplification (method)
(detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Mutation
(detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Pathogen
(diagnostic detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT DNA microarray technology
Northern blot hybridization
Nucleic acid hybridization
Southern blot hybridization
(for capture and anal. of amplification products; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(for protein capture; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT Fluorescence resonance energy transfer
(in detection of transcriptional primer extension; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Disulfides
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(in protein conjugation with oligonucleotides; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Diagnosis
(mol.; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Transcription, genetic
(nucleic acid amplification using; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Deamination
(of 5-methylcytosine, in detection of DNA methylation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Cyanine dyes
(oligonucleotide conjugates, as reporters; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Quantum dot devices
(primer conjugates, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Phycoerythrins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(primer conjugates, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Promoter (genetic element)
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(primers containing, for transcriptional amplification; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Nucleoside analogs
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(reporter group containing, in transcriptional primer elongation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT mRNA
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(specific detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT Nucleic acid amplification (method)
(transcriptional; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)
IT 120-73-0D, Purine, analogs 289-95-2D, Pyrimidine, analogs 29220-54-0 185971-89-5 291536-62-4 400051-23-2D, AlexaFluor 647, conjugates with ATP 670257-80-4 670257-82-6 670257-84-8 670257-86-0 671225-92-6 671234-25-6 671234-26-7 671234-27-8 671234-28-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as reporter, incorporation into primer extension products; detection

of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 951-78-0, Deoxyuridine
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection in DNA in anal. of DNA methylation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 554-01-8, 5-Methylcytosine
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection in DNA of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 9012-90-2, DNA-dependent DNA polymerase 9014-24-8, DNA-dependent RNA polymerase 9026-28-2, RNA-dependent RNA polymerase 64885-96-7, Primase
RL: CAT (Catalyst use); USES (Uses)
(detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 2382-65-2D, methylated
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 671527-51-8 671527-52-9 671527-54-1 671527-55-2 671527-56-3
671527-57-4 671527-58-5 671527-59-6 671527-60-9 671527-61-0
671527-63-2 671527-64-3 671527-65-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

IT 671527-53-0 671527-62-1
RL: PRP (Properties)
(unclaimed sequence; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension using reporter group-labeled nucleotides)

L7 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:356568 CAPLUS
DN 138:363805
TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension
IN Hanna, Michelle M.
PA Ribomed, Inc., USA; Ribomed Technologies, Inc.
SO PCT Int. Appl., 183 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003038042	A2	20030508	WO 2002-US34419	20021029
	WO 2003038042	A3	20040325		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003099950	A1	20030529	US 2001-984664	20011030
US 7045319	B2	20060516		
CA 2465158	A1	20030508	CA 2002-2465158	20021029
AU 2002360306	A1	20030512	AU 2002-360306	20021029
EP 1451366	A2	20040901	EP 2002-795555	20021029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2006507792	T	20060309	JP 2003-540307	20021029
US 2004054162	A1	20040318	US 2003-425037	20030429
US 2004137461	A1	20040715	US 2003-600581	20030623
US 2004234996	A1	20041125	US 2003-602045	20030624
US 2005026150	A1	20050203	US 2003-607136	20030627
US 7226738	B2	20070605		
US 2004175724	A1	20040909	US 2003-686713	20031017
US 2004157257	A1	20040812	US 2004-790766	20040303
US 2005064414	A1	20050324	US 2004-488971	20041018
PRAI US 2001-984664	A	20011030		
WO 2002-US34419	W	20021029		

TI Detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension

AB A method for detection of a target nucleic acid sequence by RNA polymerase-dependent elongation of a primer is described. The primer is elongated by the polymerase until the enzyme incorporates a blocked. . . results in extension product termination. The polymerase may then initiate extension of a new primer leading to amplification of the target sequence. The primer may include a promoter sequence suitable for the RNA polymerase or a fluorescent dyes as reporters. In one aspect, the invention provides a method for detecting a target protein, DNA or RNA by generating multiple detectable RNA oligoribonucleotides by abortive transcription. The method can be used for genotyping, mol. diagnosis, and detection of DNA methylation.

ST transcriptional amplification nucleic acid RNA polymerase primer; DNA methylation analysis transcriptional amplification

IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CDKN2A, anal. of methylation of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Genetic element
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CpG island, anal. of methylation of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Bacteriophage SP6
Coliphage T7
Enterobacteria phage T3
Escherichia coli
(RNA polymerase of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Methylation
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Nucleotides, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(analogs, as chain terminators for transcriptional primer elongation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Nucleoside analogs
Nucleosides, analysis
Nucleotides, analysis

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as chain terminators for transcriptional primer elongation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Fluorescent dyes
(as reporter groups; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT DNA
RNA
RL: ANT (Analyte); ANST (Analytical study)
(as template for amplification; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Diagnosis
Diagnosis
(cancer, anal. of DNA methylation in; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(conjugates with oligonucleotides, detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Mutation
(detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Pathogen
(diagnostic detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Nucleic acid hybridization
(for capture and anal. of amplification products; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(for protein capture; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Fluorescence resonance energy transfer
(in detection of transcriptional primer extension; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Disulfides
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(in protein conjugation with oligonucleotides; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Diagnosis
(mol.; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Transcription, genetic
(nucleic acid amplification using; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Deamination
(of 5-methylcytosine, in detection of DNA methylation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Cyanine dyes
(oligonucleotide conjugates, as reporters; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer

extension)

IT Quantum dot devices
(primer conjugates, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Phycoerythrins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(primer conjugates, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Promoter (genetic element)
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(primers containing, for transcriptional amplification; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT mRNA
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(specific detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT Nucleic acid amplification (method)
(transcriptional; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 3051-11-4D, Brilliant Yellow, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Brilliant Yellow, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 18472-87-2D, Cyanosine, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Cyanosine, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 146368-16-3D, Cy3, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Cy3, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 146368-14-1D, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Cy5, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 989-38-8D, R 6G, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(R 6G, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 67-43-6D, primer conjugates 81-88-9D, derivs., primer conjugates 81-88-9D, Rhodamine B, primer conjugates 83-88-5D, Riboflavin, primer conjugates 88-68-6D, Anthranilamide, primer conjugates 90-33-5D, 4-Methylumbelliferone, primer conjugates 91-64-5D, Coumarin, derivs., primer conjugates 129-00-0D, Pyrene, derivs., primer conjugates 143-74-8D, Phenol Red, primer conjugates 260-94-6D, Acridine, derivs., primer conjugates 569-61-9D, Pararosaniline, primer conjugates 574-93-6D, Phthalocyanine, primer conjugates 596-27-0D, o-Cresolphthalein, primer conjugates 605-65-2D, Dansyl chloride, primer conjugates 633-00-1D, Rosolic acid, primer conjugates 643-79-8D, o-Phthaldialdehyde, primer conjugates 2321-07-5D, Fluorescein, derivs., primer conjugates 3520-42-1D, Sulforhodamine B, primer conjugates 3546-21-2D, Ethidium, primer conjugates 3604-79-3D, m-Nitrotyrosine, primer conjugates 7440-27-9D, Terbium, chelates, primer conjugates 7612-98-8D, DABITC, primer conjugates 7613-08-3D, Acridine 2-isothiocyanate, primer conjugates 16423-68-0D, Erythrosin B, primer conjugates 16574-43-9D, Bromopyrogallol Red, primer conjugates 17372-87-1D, Eosin, derivs., primer conjugates 17681-50-4D, Reactive Red 4, primer conjugates 23627-89-6D, Naphthalocyanine, primer conjugates 25338-56-1D, Pyrenebutyric acid, primer conjugates 26093-31-2D, Coumarin 120, primer conjugates 27072-45-3D, FITC, primer conjugates

27816-59-7D, 4-Acetamido-4'-isothiocyanatostilbene-2,2'-disulfonic acid, primer conjugates 38183-12-9D, Fluorescamine, primer conjugates 47165-04-8D, DAPI, primer conjugates 50402-56-7D, EDANS, primer conjugates 51306-35-5D, DTAF, primer conjugates 53005-05-3D, 4,4'-Diisothiocyanatostilbene-2,2'-disulfonic acid, primer conjugates 53518-15-3D, 7-Amino-4-trifluoromethylcoumarin, primer conjugates 54849-69-3D, IR 144, primer conjugates 60311-02-6D, Sulforhodamine 101, primer conjugates 60520-47-0D, Eosin isothiocyanate, primer conjugates 61481-03-6D, primer conjugates 62669-70-9D, Rhodamine 123, primer conjugates 70281-37-7D, Tetramethyl rhodamine, primer conjugates 76823-03-5D, FAM, primer conjugates 82344-98-7D, XRITC, primer conjugates 82354-19-6D, Texas Red sulfonyl chloride, primer conjugates 82855-40-1D, JOE, primer conjugates 107347-53-5D, TRITC, primer conjugates 107743-39-5D, primer conjugates 120718-39-0D, ROX, primer conjugates 120718-52-7D, TAMRA, primer conjugates 138026-71-8D, BODIPY, primer conjugates 147492-82-8D, Malachite green isothiocyanate, primer conjugates 154088-80-9D, La Jolla Blue, primer conjugates 169799-14-8D, Cy7, primer conjugates 172777-84-3D, Cy5.5, primer conjugates 251102-88-2D, IRD 700, primer conjugates 256651-38-4D, IRD 800, primer conjugates 500723-56-8D, IR 1446, primer conjugates 522600-44-8D, primer conjugates 522600-45-9D, primer conjugates 522600-46-0D, primer conjugates 524019-23-6D, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 951-78-0, Deoxyuridine
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection in DNA in anal. of DNA methylation; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 554-01-8, 5-Methylcytosine
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection in DNA of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 9012-90-2, DNA-dependent DNA polymerase 9014-24-8, DNA-dependent RNA polymerase 9026-28-2, RNA-dependent RNA polymerase 64885-96-7, Primase
RL: CAT (Catalyst use); USES (Uses)
(detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 2382-65-2D, methylated
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 80057-51-8D, Erythrosin isothiocyanate, primer conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(erythrosin isothiocyanate, as reporter; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 144-48-9, Iodoacetamide 541-59-3, Maleimide
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(in protein conjugation with oligonucleotides; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

IT 524091-13-2
RL: PRP (Properties)
(unclaimed sequence; detection of nucleic acid sequences by isothermal RNA polymerase-dependent primer extension)

L7 ANSWER 10 OF 16 MEDLINE on STN DUPLICATE 1

AN 2003605723 MEDLINE
DN PubMed ID: 14557266
TI Mechanism and stoichiometry of interaction of DnaG primase with DnaB helicase of Escherichia coli in RNA primer synthesis.
AU Mitkova Atanaska V; Khopde Sujata M; Biswas Subhasis B
CS Department of Molecular Biology, School of Osteopathic Medicine, University of Medicine & Dentistry of New Jersey, Stratford, New Jersey 08084, USA.
SO The Journal of biological chemistry, (2003 Dec 26) Vol. 278, No. 52, pp. 52253-61. Electronic Publication: 2003-10-13.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LA English
FS Priority Journals
EM 200402
ED Entered STN: 23 Dec 2003
Last Updated on STN: 11 Feb 2004
Entered Medline: 10 Feb 2004
TI Mechanism and stoichiometry of interaction of DnaG primase with DnaB helicase of Escherichia coli in RNA primer synthesis.
AB Initiation and synthesis of RNA primers in the lagging strand of the replication fork in Escherichia coli requires the replicative DnaB helicase and the DNA primase, the DnaG gene product. In addition, the physical interaction between these two replication enzymes appears to play a role in the initiation of chromosomal DNA replication. In vitro, DnaB helicase stimulates primase to synthesize primers on single-stranded (ss) oligonucleotide templates. Earlier studies hypothesized that multiple primase molecules interact with each DnaB hexamer and single-stranded DNA. We have examined this hypothesis and determined the exact stoichiometry of primase to DnaB hexamer. We have also demonstrated that ssDNA binding activity of the DnaB helicase is necessary for directing the primase to the initiator trinucleotide and synthesis of 11-20-nucleotide long primers. Although, association of these two enzymes determines the extent and rate of synthesis of the RNA primers in vitro, direct evidence of the formation of primase-DnaB complex has remained elusive in E. coli due to the transient nature of their interaction. Therefore, we stabilized this complex. . . cross-linker and carried out a stoichiometric analysis of this complex by gel filtration. This allowed us to demonstrate that the primase-helicase complex of E. coli is comprised of three molecules of primase bound to one DnaB hexamer. Fluorescence anisotropy studies of the interaction of DnaB with primase, labeled with the fluorescent probe Ru(bipy)3, and Scatchard analysis further supported this conclusion. The addition of DnaC protein, leading to the formation of the DnaB-DnaC complex, to the simple priming system resulted in the synthesis of shorter primers. Therefore, interactions of the DnaB-primase complex with other replication factors might be critical for determining the physiological length of the RNA primers in vivo and the overall kinetics of primer synthesis.
CT Anisotropy
*Bacterial Proteins
Binding Sites
Chromatography, Gel
Chromatography, High Pressure Liquid
*DNA Helicases: CH, chemistry
*DNA Helicases: ME, metabolism
*DNA Primase: CH, chemistry
*DNA Primase: ME, metabolism
*DNA Primers: CH, chemistry
DNA, Single-Stranded
DnaB Helicases

Dose-Response Relationship, Drug
*Escherichia coli: EN, enzymology
Escherichia coli: ME, metabolism
Fluorescent Dyes
Glutaral: CH, chemistry
Kinetics
Mutation
Oligonucleotides: CH, chemistry
Protein Binding
*RNA: CH, chemistry
RN 111-30-8 (Glutaral); 63231-63-0 (RNA)
CN 0 (Bacterial Proteins); 0 (DNA Primers); 0 (DNA, Single-Stranded); 0 (Fluorescent Dyes); 0 (Oligonucleotides); EC 2.7.7.- (DNA Primase); EC 3.1.- (DnaB Helicases); EC 3.6.1.- (DNA Helicases)